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Integration or transformation? Looking in the future of Information and Communication Technology in education in Vietnam

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ABSTRACT

Over the last two decades, crucial factors for Information and Communication Technology (ICT) in education have improved significantly in Vietnam. Nevertheless, it is clear that, as in other countries, no educational revolution is taking place. We argue that there is a need for a broad dialogue on the future of ICT in education in Vietnam as discussion of ideas about future possibilities can be instrumental in rationalizing and generating educational change. We explore how a group of key players representing the public and private sector as well as development partners in the field look at the future of ICT in education in the country. Following the Delphi method, these key players assessed in different survey rounds the current situation of ICT in education, identified a series of targets and were asked to assess these targets in respect of their importance. The key players reached a consensus that the purpose of technology integration is to achieve learning goals and enhance learning. However, there is more controversy on targets that could potentially transform education practice in Vietnam. We discuss the value of the Delphi technique and argue for increased participation of all involved stakeholders in policy development on ICT in education.

1. Introduction

Related to ICT[1] in education in Vietnam, a turning point seems to be drawing near. For over a decade, an extended body of guidelines and policies has been put in place, addressing several aspects of integration of ICT in education (Peeraer & Van Petegem, 2011b). Starting from 2000, ICT has been placed on the education reform agenda both as an object of education and as an important pedagogical tool for innovating teaching methodology. Furthermore, impressive progress on improving access to ICT has been made in Vietnam, as is shown in the ICT Development Index (International Telecommunication Union, 2009, 2011). In a recent report of SEAMEO (2010),[2] it is stated that the policy guidelines and ICT infrastructure and resources in schools in Vietnam may have provided the necessary and sufficient conditions for some schools to transform their ICT-mediated teaching and learning practices. Nevertheless, it is clear that, as in other countries, no educational revolution is taking place yet. Vietnamese teacher educators for example, mostly use ICT in ways that mainly replace traditional teaching practice. However, regular, innovative use of ICT in support of student learning is still very improbable for most (Peeraer & Van Petegem, 2011a).

Research has been carried out worldwide on factors influencing or constraining the use of ICT in education and these factors have been addressed in ways to create a breakthrough (e.g. Drent & Meelissen, 2008; Groff & Mouza, 2008; Mumtaz, 2000). At the same time, critical voices are raised with regards to the entire discourse on integration of ICT in education (e.g. Bigum & Rowan, 2008; Kirkup & Kirkwood, 2005; Selwyn, 2007). The questions for Vietnam are now what to aim for and how to move ahead. Earlier we argued that Vietnam and other emerging developing countries could make a difference and aim to go beyond an access and skills based approach, striving instead for integration of ICT in education as a tool for creative learning (Peeraer & Van Petegem, 2011a).

We believe that a look into the future might put current achievements in perspective. As argued by Williams (2005), extrapolations from emergent trends can have a value in promoting understanding of the present situation as well as in identifying needs for the future. It is clear, as argued by Selwyn (2012), that technology is certainly not an uncontested or

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[1] Information and Communication Technology.
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uncontroversial area of education and many of the issues that surround education and technology are the fundamentally political questions that are always asked of education and society – i.e. questions about what education *is*, and questions about what education should be.

Accordingly, we brought together a selected group of key players in the field of ICT in education in Vietnam and facilitated a reflection process on targets and priorities in respect of ICT in education in Vietnam for 2020. Facer and Sandford (2009) recommend such forums to enable educators, policy makers, learners, communities, business and parents to explore how best to appropriate or resist emerging socio-technical developments, and to debate the political and ethical questions raised by 'the unpredictability and serendipity of social and technical outcomes' (Williams in Facer & Sandford, 2009). From discussions of national strategy, to day-to-day interactions between educators and learners, ideas about possible futures can be instrumental in rationalizing and generating educational change (Facer & Sandford, 2009). Also in Vietnam, a stronger dialogue among practitioners, researchers and policy makers can be achieved. In our study, we facilitated this by following the Delphi method wherein different survey rounds key players assessed the current situation of ICT in education, identified a series of targets for the future and were asked to assess these targets on their importance.

In this research paper we start with a critical perspective on the future of ICT in education. After clarifying the research objectives, we describe in detail the Delphi method and how we applied the method for this study. For each round of the study we present the major findings, after which we draw conclusions and discuss about how to move ahead with ICT in education in Vietnam.

2. The future of ICT and education

ICT is one of the most visible symbols of globalization and educational innovation (Power, 2007) and is often presented as both a cause and a consequent driver for educational innovation and change (Clegg et al., 2003). Different rationales that are behind ICT in education policies have been identified (e.g. Hawkridge, 1990; Kozma, 2008; Selwyn, 1999; Tondeur, van Braak, & Valcke, 2007), going from an economic rationale, a social rationale, and an educational rationale, to a catalytic rationale (Kozma, 2008). Within these discourses, ICT is often presented as 'inevitable' (James & Hopkinson, 2009) and increasingly ubiquitous. It has already been observed that, currently, ICT has been used far beyond enhancing teaching and learning to include promoting research, scholarly community engagement, and administration (Balasubramanian et al., 2009). The integration of ICT is moving beyond getting personal computers into the hands of learners and towards mobile technology, virtual world, and cloud computing amongst others (Hong & Songan, 2011). Facer and Sandford (2009) argue however that technological determinism saturates many of the future educational visions promoted by policy-makers, industry and even some researchers. More and more researchers urge caution when speaking of the affordances of new technologies and when assuming that a given medium or technology will automatically bring about particular learning outcomes since there is nothing inherent in technology that automatically guarantees learning (e.g. John & Sutherland, 2005). Robertson (2003) even points out a series of studies that have failed to find a positive relationship between ICT use and student achievement. On a somewhat more positive note, Collins and Halverson (2009) argue that we all know that technology has transformed our larger society, but that, nevertheless, it remains uncertain how the education sector responds to technological innovations.

What seems to be a critical uncertainty is the response of the education system which varies from rapid transformations in policy and practice at one extreme to resistance and incremental change at the other (Facer & Sandford, 2009). Two particular observations serve to temper expectations: first, there has been a disappointingly slow uptake of ICT in education even though high investments have taken place in improving access to technologies and in improving the skills of teachers and learners; secondly, there has not been an educational revolution in teaching and learning (Selwyn, 2007). Bigum and Rowan (2008) also observe that despite the enormous reshaping of the planet's social, economic and political circumstances, supported by the global deployment of ICT, the focus in teacher education has remained largely at site, reflecting a similar focus in schools. Researchers emphasize the notion of ICT adoption as a staged or sequential process (Farrell & Wacholz, 2003; Tearle, 2003). In the first place, investments are often made in technology and skills training, and ICT is seen as an object of education. However, the 2007 Asia Policy Forum on ICT integration into Education (World Links, 2007) suggested that ICT integration should not start with providing the technology and infrastructure but with educating the teachers. In much of the research on integration of ICT in education, different stages or phases are identified (e.g. in Mills & Tincher, 2003). It has also been suggested to analyze ICT based innovations on a continuum ranging from the assimilation level through the transition level and up to the transformation level (Mioduser, Nachmias, Tubin, & Forkosh-Baruch, 2003). UNESCO identifies four categories or stages of development concerning ICT use in education: emerging, applying, infusing and transforming (UNESCO, 2005, 2010). Education institutions or systems at the emerging stage have just begun to introduce computers. The focus in the classroom is often on learning basic ICT skills and identifying ICT components. At the applying stage, additional ICT equipment has been acquired, usually in countries where there are national ICT policies in place and where various ICT strategies are being trialed. Educators use ICT for professional purposes, focusing on improving their subject teaching in order to enrich how they teach with a range of ICT applications. At the infusing stage (or also called "integrating" or "embedding" stage), almost all classrooms are equipped, as are school offices and the library, and schools have internet connections. While teachers now integrate ICT in all aspects of their professional lives to improve their own learning as well as the learning of their students, ICT is not completely fused with other regular learning activities (UNESCO, 2010). It is in the most advanced, transforming stage of ICT-mediated teaching and learning pedagogies, that students' thinking processes are supported by ICT (SEAMEO, 2010). When this stage is reached, the whole ethos of the institution is changed: teachers and other support staff regard ICT as a natural part of the everyday life of their institutions, which have become centers of learning for their communities (UNESCO, 2010).

In previous research, the Peeraer and Van Petegem (2012) have developed an instrument that can be used for fundamental measurement of perceived use of ICT for teaching and support of student learning of the reference population, allowing for identification of stages of innovation of ICT integration. Applied in the framework of a study on the use of ICT by Vietnamese teacher educators, the findings clarify that the majority of Vietnamese teacher educators have a high probability to use ICT to replace their existing teaching practice or to enhance student learning from time to time. Nevertheless, regular, innovative use of ICT in support of student learning was still very improbable for most (Peeraer & Van Petegem, 2012).

3. Research objectives

The aim of this study was to facilitate dialogue and cooperation on a wide range of operational components of ICT in education and